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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/519,697	12/27/2004	Ryuya Tachino	275854US6PCT	7279

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EXAMINER	
NGUYEN, LINH THI	
ART UNIT	**PAPER NUMBER**
2627	

DATE MAILED: 11/24/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/519,697	TACHINO ET AL.	
	Examiner	Art Unit	
	Linh T. Nguyen	2627	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *06 September 2006*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *28-54* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *28-54* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 28, 29, 31, 32, 34, 38, 39, 41, 42, 44~~,~~–46, 48, 49 and 51 are rejected under 35 U.S.C. 102(b) as being unpatentable by Nagara et al (US Patent Number 6147957).

In regards to claims 28 and 45 Nagara et al discloses an optical recording medium and method in which write-once or rewrite operation of data can be performed with block including a group of data being as unit, wherein buffer areas (linking section) for random access are respectively disposed before and after respective blocks (Fig. 3, block N, N+1, N+2, etc), whereby when new block (N+1) is recorded a start point for a buffer area (Fig. 3, "Start of new block" shown by dotted line) before the new block is not fixed relative to an exisiting block preceding the new block (A block can store a maximum of 32KB, therefore the block can range from 0-32KB depending on the user's data and the existing block is fixed because data is already recorded) and the new block is recorded in the state where the buffer area provided with respect to the block and the buffer area provided with respect to existing block adjacent to the new block overlap with each other (Column 4, lines 47-51).

In regards to claims 29 and 46, Nagara et al discloses the optical recording medium and method, wherein recording unit block (N, N+1, N+2) is constituted by block and the buffer areas (linking sections) before and after the block (Fig. 3), and guard area (SY1 to SY7 to SY2) or areas is or are provided at the rear portion of one recording unit block or at the rearmost portion of successive plural recording unit blocks (Fig. 3).

In regards to claims 31, 41 and 48, Nagara et al discloses the optical recording medium, apparatus and method, wherein the buffer area or areas disposed immediately before or immediately after block (Fig. 3), or immediately before and immediately after block includes or include guard area (SY1 to SY7 to SY2) for overlap at the time of recording (Fig. 3), and signal pattern for automatic adjustment according to power of light source is recorded within the guard area (Column 5 lines 17-18 and Column 6, lines 17-21; since the automatic power control is inputted in the LDD from the disk, it is obvious that adjustment of power light source is implemented).

In regards to claims 32, 42, and 49, Nagara et al discloses the optical recording medium, apparatus and method, wherein the buffer area disposed immediately before block includes guard area for overlap at the time of recording (Fig. 3, Column 4, lines 47-51), and preamble for signal processing, and plural synchronization patterns (Fig. 3, SY1-SY7) having distances and identification information which are different from each

other are recorded at the preamble (It is inherent that the preamble contains identification information).

In regards to claims 34, 44, and 51, Nagara et al discloses the optical recording medium, apparatus and method, wherein the buffer area disposed immediately after block includes postamble for time adjustment of signal processing (SY1 to SY7), and guard area for adjustment of recording end position (SY7, end of the previous block; Fig. 3), and signal pattern for detecting reproduction end of the block is recorded at the postamble (Column 4, lines 36-37).

In regards to claim 38, Nagara et al discloses an information processing apparatus (Fig. 1) adapted for performing recording or reproduction of information with respect to an optical recording medium in which write-once or rewrite operation of data can be performed with block including a group of data being as unit (Fig. 3), the information processing apparatus including data recording means for generating recording channel data in which buffer areas for random access are added before and after respective blocks to record the data onto an optical recording medium (Fig. 1 element 8), wherein when recording of new block is started with respect to a first block and a second block which have been already recorded (Column 4, lines 39-51), the block is recorded in the state where the buffer area disposed immediately before the block and the buffer area disposed immediately after the first block adjacent to the block overlap with each other (Fig. 3), and when recording of block is completed, the block is

recorded in the state where the buffer area disposed immediately after the block and the buffer area disposed immediately before the second block adjacent to the block overlap with each other (Column 4, lines 47-50) .

In regards to claim 39, Nagara discloses the information processing apparatus as set forth in claim 11, wherein recording and reproduction are performed with recording unit block (N, N+1, N+2) including block the buffer areas (linking area) before and after the block being as processing unit (Fig. 1 element 4), and guard area or areas is or are provided at the rear portion of one recording unit block (Fig. 3), or at the rearmost portion of successive plural recording unit blocks at the time of recording of recording channel data (Fig. 1, elements 8 and Fig. 5A).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 30, 33, 35-37 40, 43, 47, 50 and 52-54 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nagara et al in view of Van Woudenberg et al (US Patent number 6724707). For the description of Nagara rejection see, supra.

In regards to claims 30, 40 and 47, Nagara et al discloses the optical recording medium, apparatus and method, wherein the buffer area disposed immediately before block includes guard area (within the linking area) for overlap at the time of recording (Column 39, lines 1-44 and lines 47-50). However, Nagara et al does not discloses preamble for signal processing, and signal patterns for frequency pull-in of Phase Locked Loop (PLL) at the time of data reproduction and Auto Gain Control (AGC) are recorded at the guard area or the preamble.

In the same field of endeavor, Van Woudenberg et al discloses preamble for signal processing (Fig. 2, header area), and signal patterns for frequency pull-in of Phase Locked Loop (PLL) at the time of data reproduction and Auto Gain Control (AGC) are recorded at the guard area or the preamble (Column 6, lines 42-54). At the time of the invention it would be obvious to a person of ordinary skill in the art to modify Nagara et al optical recording medium to reproduce a signal patterns for frequency pull-in Phase Locked Loop and Auto Gain Control of Van Woudenberg et al. The motivation for doing so would have been to provide a medium which comprises a synchronization pattern to ensure optimized of an automatic gain control (Column 2, lines 43-47).

In regards to claims 33, 43 and 50, Nagara et al discloses the optical recording medium, apparatus and method, wherein the buffer area disposed immediately after block includes postamble for time adjustment of signal processing (SY1 and SY7), and guard area for adjustment of recording end position (Fig. 3).

Nagara et al does not but Van Woudenberg et al discloses a signal pattern for Phase Locked Loop (PLL) according to reproduction clock is recorded at the postamble (Column 7, lines 31-43). The motivation is as same as above.

In regards to claims 35, 36, 37, 52, 53 and 54, Nagara et al does not but Van Woudenberg et al discloses the optical recording medium and method, wherein the signal pattern is repetitive pattern of 3T/3T/2T/2T/5T/5T (Column 5, lines 30-33). At the time of the invention it would have been obvious to a person of ordinary skill in the art to include Nagara et al optical recording medium with a signal pattern of 3T/3T/2T/2T/5T/5T of Van Woudenberg et al. The motivation for doing so would have been to ensure an optimized setting of AGC amplifier (Column 2, lines 44-47).

Response to Arguments

Applicant's arguments filed 9/06/06 have been fully considered but they are not persuasive. Applicant argues that Nagara does not disclose a buffer area length is fixed. However, Nagara discloses a linking section (buffer area) consist of 8 frames, therefore, it has a fixed length (Fig. 3). Applicant's also pointed out a fomula (b+x2) is the maximum range of bytes that SY7 can possibly record, therefore, the claim does not limit that the length amount to be the bytes value within the frame but simply the physical length of the buffer area. Applicant argues that Nagara does not disclose the buffer area preceding and following a block have a fixed length, and the start point for a buffer area for a new block is not fixed. Nagara discloses that the preceding block is

fixed (N) but the new block (N+1) is not fixed (Fig. 3). The block that is recorded is fixed because data are already recorded in the preceding block but the new block is composed of 16 sectors and one sector is consist of 26 frames. The end user controls the amount of data recorded in each sector from 1-16 sectors, therefore the block is not fix.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Linh T. Nguyen whose telephone number is 571-272-5513. The examiner can normally be reached on 8:30am-5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, A. Wellington can be reached on 571-272-4483. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

LN
November 16, 2006

WAYNE YOUNG
SUPERVISORY PATENT EXAMINER